FIG. 1

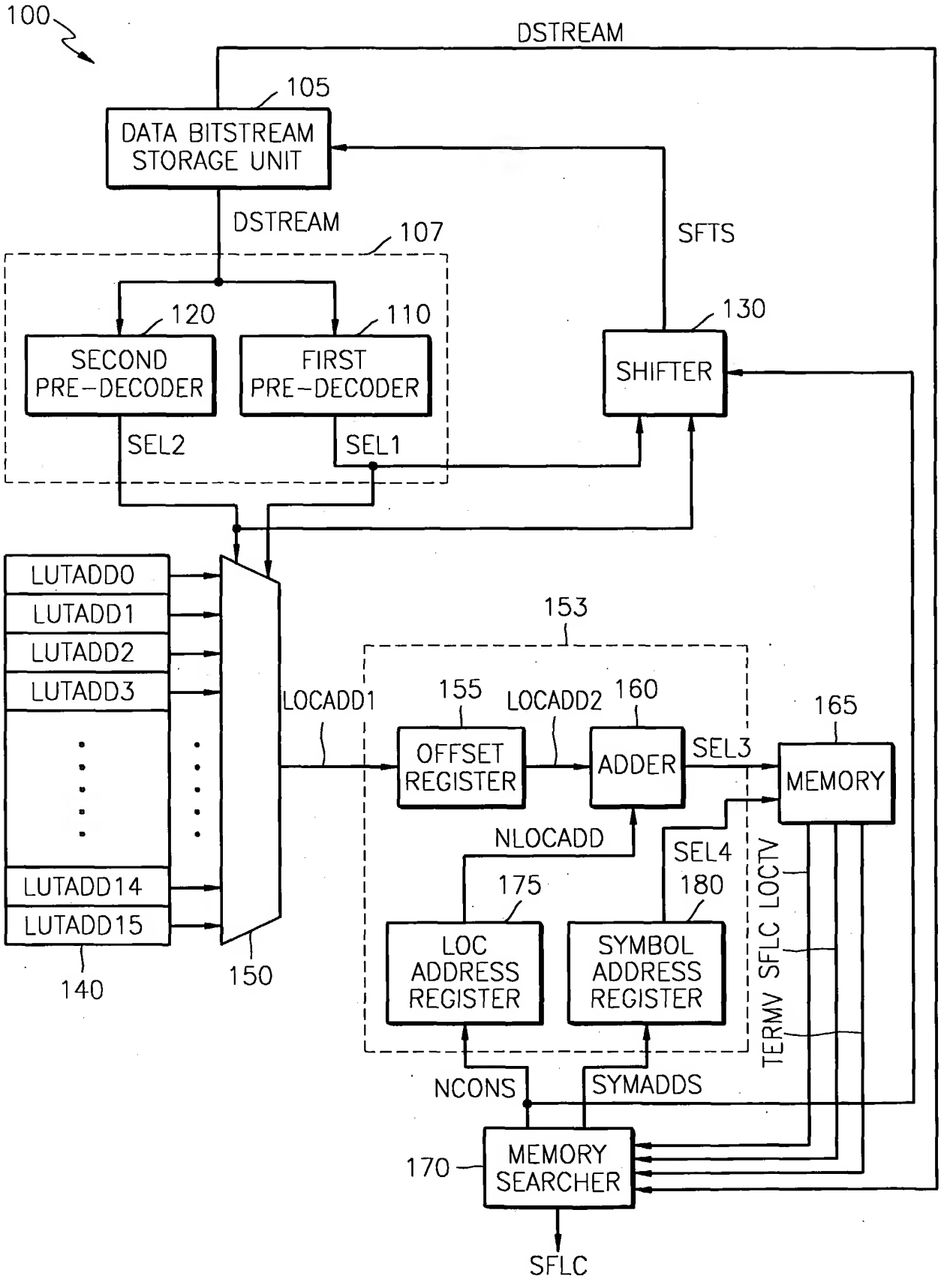

100
DSTREAM
105
DATA BITSTREAM STORAGE UNIT
DSTREAM
107
SFTS
120
110
130
SECOND PRE-DECODER
FIRST PRE-DECODER
SHIFTER
SEL2
SEL1
LUTADD0
LUTADD1
LUTADD2
LUTADD3
LUTADD14
LUTADD15
140
150
153
LOCADD1
155
LOCADD2
160
165
OFFSET REGISTER
ADDER
SEL3
MEMORY
NLOCADD
SEL4
175
180
LOC ADDRESS REGISTER
SYMBOL ADDRESS REGISTER
TERMV SFLC LOCTV
NCONS
SYMADDS
170
MEMORY SEARCHER
SFLC

FIG. 2

200

NODE TYPE	LOC INFORMATION BITS							
0 Terminal Node	11	10	10	10				
1 Terminal Node					11	10	10	10
00 Terminal Node	11	10						
01 Terminal Node			11	10				
10 Terminal Node					11	10		
11 Terminal Node							11	10
000 Terminal Node	11							
000 Continuous Node	01							
000 Invalid Node	00							
001 Terminal Node		11						
001 Continuous Node		01						
001 Invalid Node		00						
010 Terminal Node			11					
010 Continuous Node			01					
010 Invalid Node			00					
011 Terminal Node				11				
011 Continuous Node				01				
011 Invalid Node				00				
100 Terminal Node					11			
100 Continuous Node					01			
100 Invalid Node					00			
101 Terminal Node						11		
101 Continuous Node						01		
101 Invalid Node						00		
110 Terminal Node							11	
110 Continuous Node							01	
110 Invalid Node							00	
111 Terminal Node								11
111 Continuous Node								01
111 Invalid Node								00

FIG. 3

INDEX	SYMBOL	FIXED LENGTH CODE	VARIABLE LENGTH CODE
0	a	000	10
1	b	001	111
2	c	010	00
3	d	011	0111
4	e	100	0110
5	f	101	010
6	g	110	110

HUFFMAN CODE TABLE (VLC TABLE)

FIG. 4

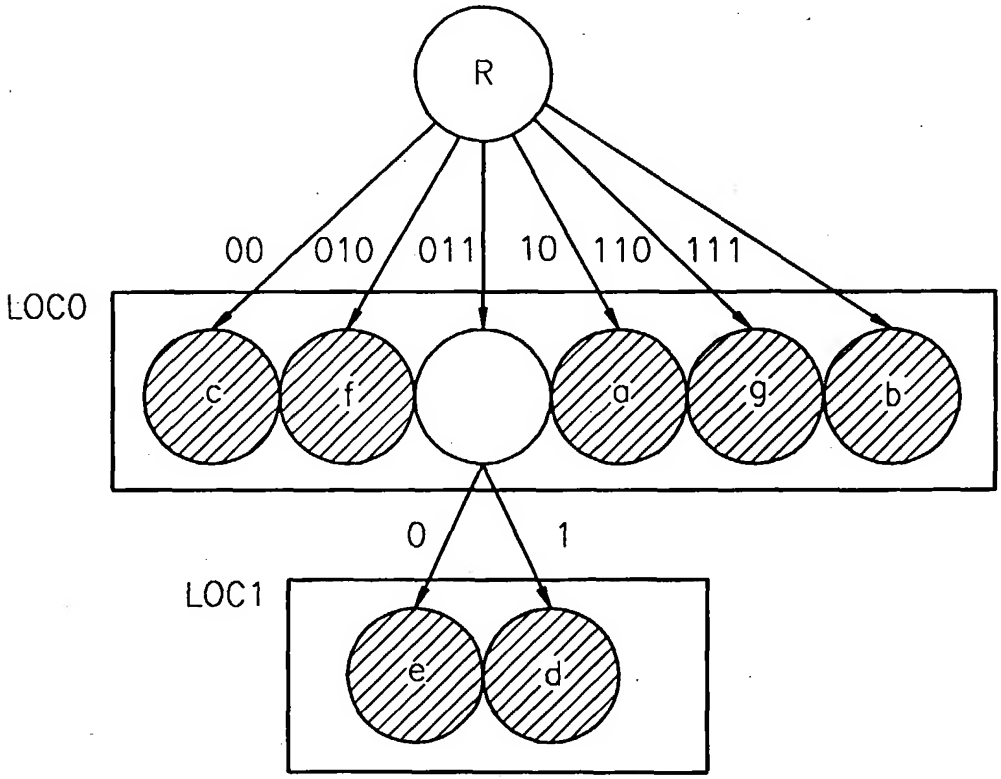


FIG. 5

ADDRESS	CONTENT (16 BITS)								TERMINAL VALUE (8 BITS)
0	11	10	11	01	11	10	11	11	0
1	11	10	10	10	11	10	10	10	5

FIG. 6

ADDRESS	FIXED LENGTH CODE	SYMBOL
0	010	c
1	101	f
2	000	a
3	110	g
4	001	b
5	100	e
6	011	d

FIG. 7

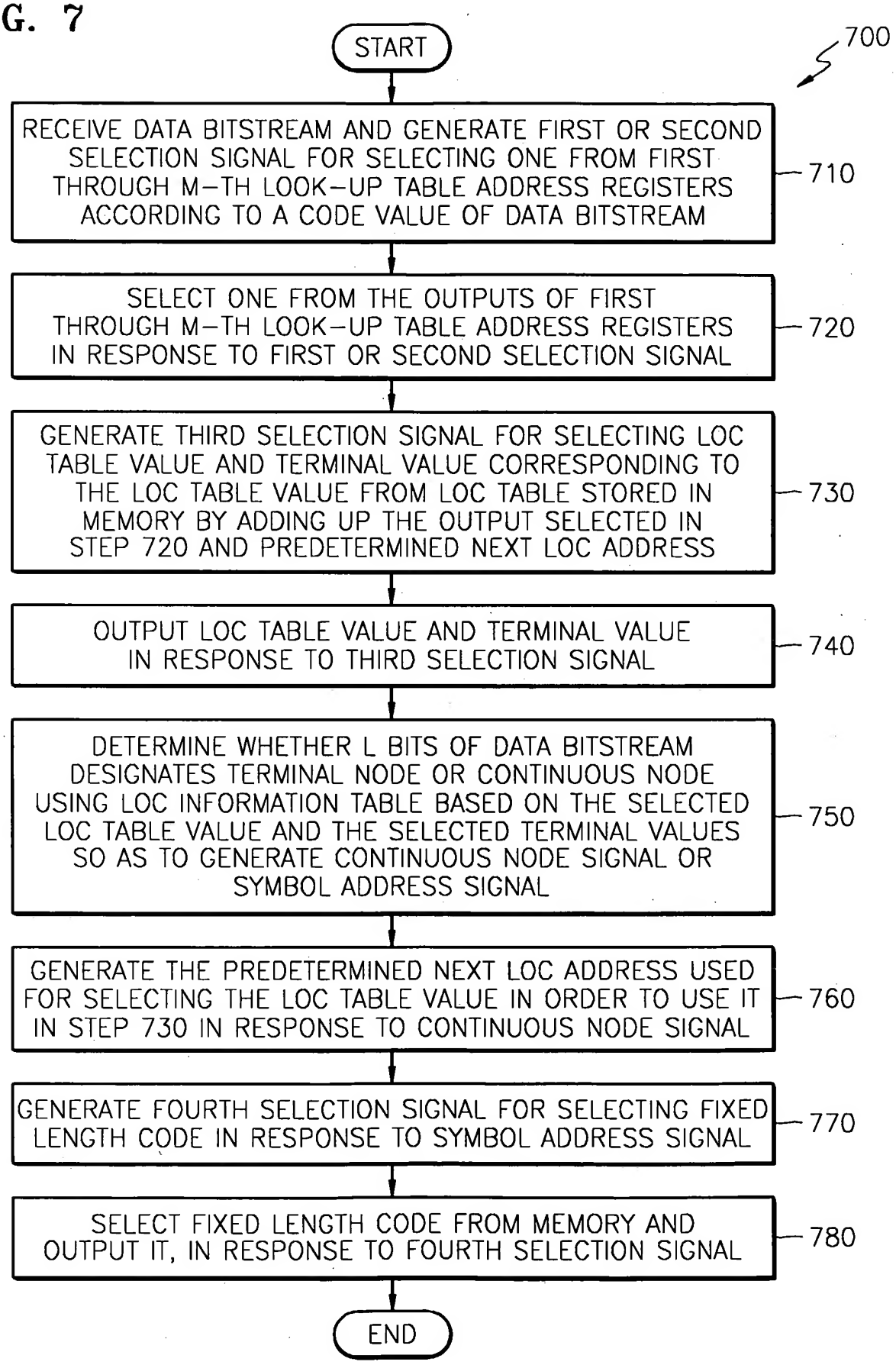
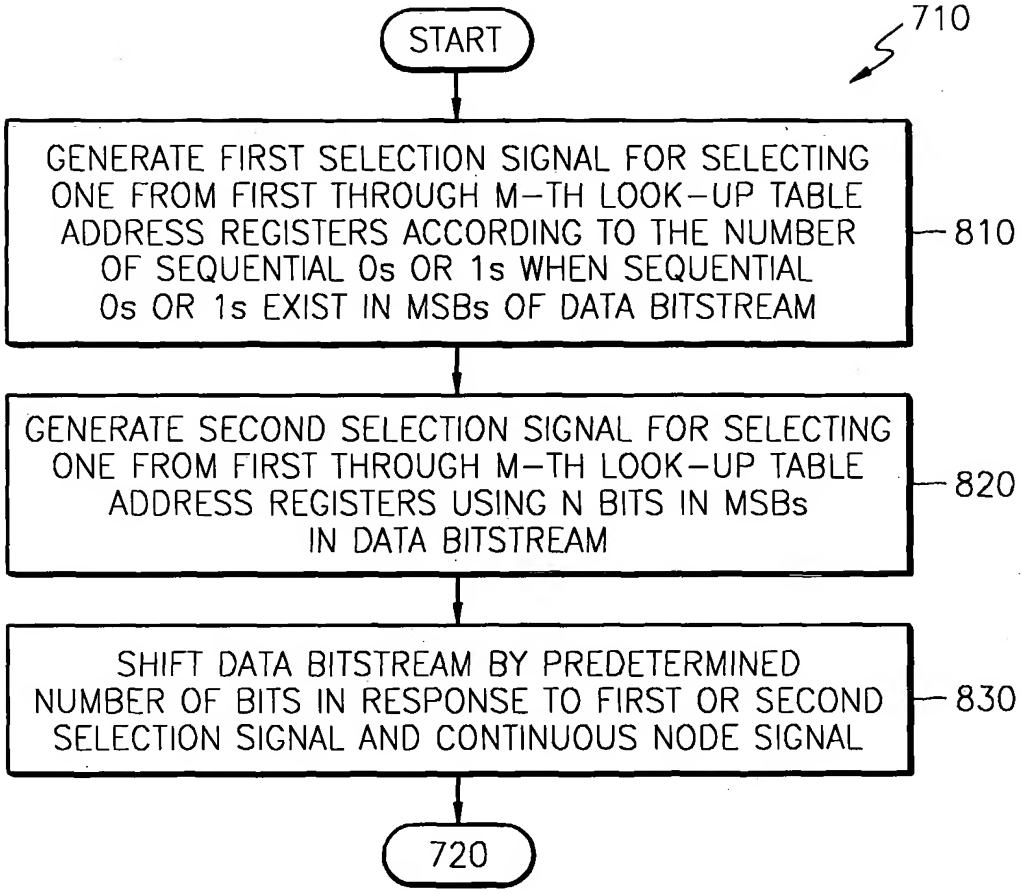

START
700
RECEIVE DATA BITSTREAM AND GENERATE FIRST OR SECOND SELECTION SIGNAL FOR SELECTING ONE FROM FIRST THROUGH M-TH LOOK-UP TABLE ADDRESS REGISTERS ACCORDING TO A CODE VALUE OF DATA BITSTREAM
710
SELECT ONE FROM THE OUTPUTS OF FIRST THROUGH M-TH LOOK-UP TABLE ADDRESS REGISTERS IN RESPONSE TO FIRST OR SECOND SELECTION SIGNAL
720
GENERATE THIRD SELECTION SIGNAL FOR SELECTING LOC TABLE VALUE AND TERMINAL VALUE CORRESPONDING TO THE LOC TABLE VALUE FROM LOC TABLE STORED IN MEMORY BY ADDING UP THE OUTPUT SELECTED IN STEP 720 AND PREDETERMINED NEXT LOC ADDRESS
730
OUTPUT LOC TABLE VALUE AND TERMINAL VALUE IN RESPONSE TO THIRD SELECTION SIGNAL
740
DETERMINE WHETHER L BITS OF DATA BITSTREAM DESIGNATES TERMINAL NODE OR CONTINUOUS NODE USING LOC INFORMATION TABLE BASED ON THE SELECTED LOC TABLE VALUE AND THE SELECTED TERMINAL VALUES SO AS TO GENERATE CONTINUOUS NODE SIGNAL OR SYMBOL ADDRESS SIGNAL
750
GENERATE THE PREDETERMINED NEXT LOC ADDRESS USED FOR SELECTING THE LOC TABLE VALUE IN ORDER TO USE IT IN STEP 730 IN RESPONSE TO CONTINUOUS NODE SIGNAL
760
GENERATE FOURTH SELECTION SIGNAL FOR SELECTING FIXED LENGTH CODE IN RESPONSE TO SYMBOL ADDRESS SIGNAL
770
SELECT FIXED LENGTH CODE FROM MEMORY AND OUTPUT IT, IN RESPONSE TO FOURTH SELECTION SIGNAL
780
END

FIG. 8


START
710
GENERATE FIRST SELECTION SIGNAL FOR SELECTING ONE FROM FIRST THROUGH M-TH LOOK-UP TABLE ADDRESS REGISTERS ACCORDING TO THE NUMBER OF SEQUENTIAL 0s OR 1s WHEN SEQUENTIAL 0s OR 1s EXIST IN MSBs OF DATA BITSTREAM
810
GENERATE SECOND SELECTION SIGNAL FOR SELECTING ONE FROM FIRST THROUGH M-TH LOOK-UP TABLE ADDRESS REGISTERS USING N BITS IN MSBs IN DATA BITSTREAM
820
SHIFT DATA BITSTREAM BY PREDETERMINED NUMBER OF BITS IN RESPONSE TO FIRST OR SECOND SELECTION SIGNAL AND CONTINUOUS NODE SIGNAL
830
720